| Attorney Doo  | ket NoYAMAP0983US  |  |  |  |  |
|---|--|--|--|--|--|
| IN THE UNITED STATES PATENT AND TRADEMARK OFFICE (DO/EO/US) |  |  |  |  |  |
| In re nationa   | al phase of:   |  |  |  |  |
| Applicant(s)  | : HOOPER et al.  |  |  |  |  |
| Application I   | No.: 10/536,706  |  |  |  |  |
| Filing Date:  | May 27, 2005   |  |  |  |  |
| Title of Inver  | ntion: METHOD OF GROWING P-TYPE GALLIUM NITRIDE THIN FILMS BY MOLECULAR BEAM EPITAXY   |  |  |  |  |
|   | SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT  |  |  |  |  |
| P.O. Box 14   | ner for Patents  |  |  |  |  |
| Sir:  |  |  |  |  |  |
| the patents, listed docum                                   | to 37 C.F.R. 1.97 and 1.98, and in compliance with 37 C.F.R. 1.56, the Office's attention is directed to pending applications, publications and other information listed on the attached PTO-1449. A copy of each tent is enclosed except for: (a) pending applications or (b) those previously cited or submitted to the Office ing application(s) upon which this application relies for an earlier filing date under 35 U.S.C. 120: |  |  |  |  |
| Serial No<br>Filing Da                                      | te:  |  |  |  |  |
| Applicant(s)  | ny document, publication or other information for which a date is not given on the attached PTO-1449, believe(s) the same may qualify as "prior" art to this application and should be treated accordingly, plicant(s) reserve(s) the right to contest the prior art status of any document, publication or information, arise.  |  |  |  |  |
| this Stateme  | ng each listed document that is not in the English language, an English-language translation accompanies ent as indicated on the attached PTO-1449 or a concise explanation of the relevance of the document is ne following document(s):  |  |  |  |  |
| (a)   | Copy of each English language version of a search report indicating the degree of relevance found by the foreign office of each document being submitted from the search report.   |  |  |  |  |
| (b)   | Attachment entitled "Concise Explanation of Relevance of Non-English Language Documents".  |  |  |  |  |
| 3. Pursuant   | to 37 C.F.R. 1.97(b) this Statement is being filed (one must be checked):  |  |  |  |  |
| (a) <u>X</u>  | Within 3 months of the filing date, date of entry into the National Stage, or filing date of CPA.  |  |  |  |  |
| (b)   | Before the mailing date of a first Office Action on the merits. If this Statement is not filed before the mailing date of a first Office Action on the merits, the required certification is given below or, in the absence thereof, the Office is authorized to charge the required fee set forth in 37 C.F.R. 1.17(p) to   |  |  |  |  |

Before the mailing date of a first Office Action on the merits after a first or second submission after final

Deposit Account No. 18-0988 for consideration of this Statement.

rejection under 37 C.F.R. 1.129(a).

(c) \_\_\_

|   | After the period set forth in 37 C.F.R. 1.97(b) but before the mailing date of either a final action or a notice of allowance.   |  |  |  |
|---|--|--|--|--|
| (1)   | The required certification is given below, or  |  |  |  |
| (2)   | Enclosed is a check covering the fee set forth in 37 C.F.R. 1.17(p) for consideration of this Statement, or  |  |  |  |
| (3)   | Charge the fee set forth in 37 C.F.R. 1.17(p) to Deposit Account No. 18-0988   |  |  |  |
| f   | After the mailing date of either a final action or a notice of allowance, but before payment of the issue ee. Petition hereby is made for consideration of this Statement and the required certification is indicated pelow.   |  |  |  |
| (1)   | Enclosed is a check covering the fee set forth in 37 C.F.R. 1.17(p), or  |  |  |  |
| (2)   | Charge the fee set forth in 37 C.F.R. 1.17(p) to Deposit Account No. 18-0988.  |  |  |  |
| 4. Certificatio                                 | n (if applicable)  |  |  |  |
| i i   | The undersigned hereby certifies that each item of information contained in this Statement was first cited nany communication from a foreign patent office in a counterpart foreign application not more than 3 months prior to the filing of this Statement.  |  |  |  |
| . ,<br>k  | The undersigned hereby certifies that no item of information contained in this Statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the undersigned's mowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. 1.56(c) more than 3 months prior to the filing of this Statement. |  |  |  |
| 5. The Comm<br>Account No. 1                    | nissioner is hereby authorized to charge any additional fees or credit any overpayment to Deposit 8-0988.  |  |  |  |
|   | Respectfully Submitted,  |  |  |  |
|   | RENNER, OTTO, BOISSELLE & SKLAR, LLP   |  |  |  |
|   | By Mark D. Saralino  |  |  |  |
|   | Reg. No. 34,243  |  |  |  |
| 1621 Euclid A<br>Cleveland, Oh<br>(216) 621-111 |  |  |  |  |
| CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8     |  |  |  |  |
| deposited on t                                  | rtify that this correspondence (along with any paper referenced as being attached or enclosed) is being the below date with the United States Postal Service with sufficient postage as first class mail in an essed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450   |  |  |  |

Date: \_\_\_\_June 21, 2005

Z:\SEC182\MDS\YAMA\P983us\ids2.wpd IDS-1.FRM (2/98)

# Form PTO-1449 (Modified) LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary) Atty Docket No. YAMAP0983US 10/536,706 Applicant: HOOPER et al. Filling Date May 27, 2005 Not Yet Assigned

### U.S. PATENT DOCUMENTS

| Examiner<br>Initial | Document Number | Date | Name | Class | Sub-<br>class | Filing Date if<br>Appropriate |
|---------------------|-----------------|------|------|-------|---------------|-------------------------------|
|                     |                 |      |      |       |               |                               |
|                     |                 |      |      |       |               |                               |

## FOREIGN PATENT DOCUMENTS

| Examiner<br>Initial | Document Number | Date | Country |  | Sub-<br>class | Translation |    |
|---------------------|-----------------|------|---------|--|---------------|-------------|----|
|                     |                 |      |         |  | Class         | Yes No      | No |
|                     |                 |      |         |  |               |             |    |
|                     |                 |      |         |  |               |             |    |

### OTHER ART

| Examiner<br>Initial  | Author, Title, Date, Pertinent Pages, etc.  |  |  |  |
|--|---|--|--|--|
| Mayer M. et al.; "Reactive MBE of group III nitrides: high-quality homoepitaxial GaN and ulight-emitting diodes" Journal of Crystal Growth, North-Holland Publishing Co. Amsterdan 201-202, May 1999, Pages 318-322, XP004175132.                          |   |  |  |  |
|  | Mayer M. et al.; "Device performance of ultra-violet emitting diodes grown by MBE" Journal of Crystal Growth, North-Holland Publishing Co. Amsterdam, NL, vol. 189-190, June 15, 1998, Pages 782-785, XP004148622.              |  |  |  |
|  | Abernathy C.R. et al.; "Growth of group III nitrides by metalorganic molecular beam expitaxy" Journal of Crystal Growth, North-Holland Publishing Co. Amsterdam, NL, vol. 178, no. 1-2, June 1, 1997, Pages 74-86, XP004084976. |  |  |  |
| Yang Z. et al.; "High-quality GAN and AIN grown by gas-source molecular beam epitaxy using ammonia as the nitrogen source" Journal of Crystal Growth, North-Holland Publishing Co. Amsterdam, NL, vol. 14, no.3, May 1, 1996, Pages 2354-2356 XP000621863. |   |  |  |  |

| EXAMINER | DATE CONSIDERED |
|----------|-----------------|
|          |                 |

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

# Information Disclosure Statement PTO-1449 (Modified)

The identification of any reference is not intended to be, and should not be understood as being, an admission that such publication, in fact, constitutes "prior art" within the meaning of applicable law since, for example, a given reference may have a later effective date than first seems apparent or the reference may have an effective date which can be antedated. The "prior art" status of any reference is a matter to be resolved during prosecution.